



Navy Environmental Quality Fact Sheet



Do you remove paint, corrosion or marine growth from ship hulls?

Would you like to improve this process in the following areas?

- **Meeting environmental compliance regulations** -- Reduce the amount of hazardous waste and air emissions generated. Applicable regulatory areas include RCRA, NESHAP, and VOC NAAQS.
- **Improving workers' safety and health** -- Reduce exposure to harmful solvents and particulate matter.
- **Increasing productivity** -- Improve efficiency in paint/corrosion removal operations; reduced process material costs.
- **Saving money** -- Reduce costs of handling and disposing of hazardous wastes.



High-Pressure Water Jet system

*Water Jet systems apply a high-pressure water spray to objects or surfaces to remove paint, corrosion or marine growth. Traditionally, hazardous solvents or dry blast media techniques have used for these operations. High Pressure Water Jet systems minimize waste, reduce labor costs and provide a safe alternative for these types of surface cleaning operations. These units may also have closed-loop wastewater filtration systems to separate waste matter and residue from the process water, thereby decreasing the volume of waste to be disposed and permitting the recovery and reuse of the process water. High pressure water jet systems are being used successfully at several Navy installations. **This equipment is available through the Navy Pollution Prevention Equipment Program.***

How can you achieve these improvements?

Implement High-Pressure Water Jet Systems.

How does this equipment work?

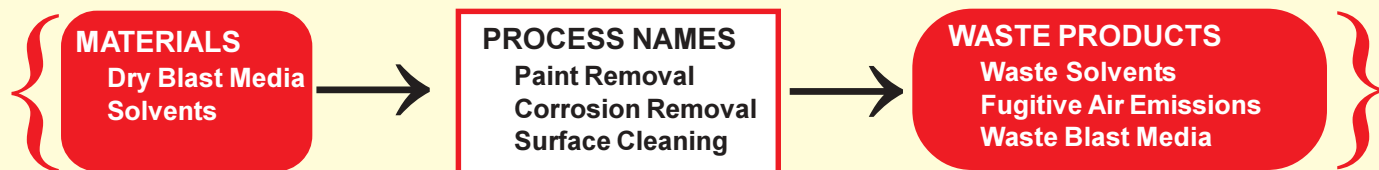
This technology uses a high pressure water blast system to safely remove paint or corrosion from objects and surfaces.

How will this equipment save you money?

Operational costs will be reduced due to reduced labor hours, waste disposal costs and process material costs. The cost to implement varies from \$300,000 to \$1.5M. The equipment typically pays for itself in less than two years.



Typical Process Flow Diagram



How can this technology eliminate or reduce pollution?

When implemented, this technology can reduce the amount of waste generated during paint/corrosion removal operations. Implementation will result in the following pollution reductions:

- Elimination of Solvent or Blast Media Waste.
- Reduction in Air Emissions and Dust Related to Media Blasting Operations.

Which shops can benefit most from this technology?

This technology can be used in processes that involve paint, corrosion or marine growth removal. Typical processes include:

- Underwater Mine Maintenance and Repair
- Submarine Cleaning and Maintenance
- Shipboard Operations and Ship Maintenance
- Storage Tank Removal Operations

Take action: How can you implement this technology?

- **Activity Shop & Work Center Personnel.** If you work at an activity, contact your Pollution Prevention Program Manager. The P2 Program Manager can provide more information and conduct a more detailed analysis, and may be able to provide this equipment at no cost to a Shop or Work Center.

- **Activity Pollution Prevention Manager.** Request funding and installation assistance for this technology through the Navy P2 Equipment Program. Depending on the application, the Environmental Requirements Cookbook may contain project submission information for annual budget submissions to your major claimant.

- **For Additional Technical Information.** More information about this technology can be found on Joint Service P2 Opportunity Handbook Datasheet Number 5-12 (**Web:** http://p2library.nfesc.navy.mil/P2_Opportunity_Handbook/5_12.html).

Achieving Environmental Compliance Through Pollution Prevention

Everyday the Navy faces the challenge of operating and maintaining the fleet while complying with environmental regulations. This burden can be reduced by implementing pollution prevention technologies and methods to reduce compliance requirements. This Fact Sheet is one in a series designed to encourage activities to implement pollution prevention technologies and methods. The overall goal of this series is to promote sustained environmental compliance at the lowest life-cycle cost.

For additional information, contact:

Program POC:

(805) 982-5318, DSN: 551-5318

E-mail: Fact.Sheet.ProgramPOC@nfesc.navy.mil

Technical POC:

(732) 323-7131, DSN: 624-7131

